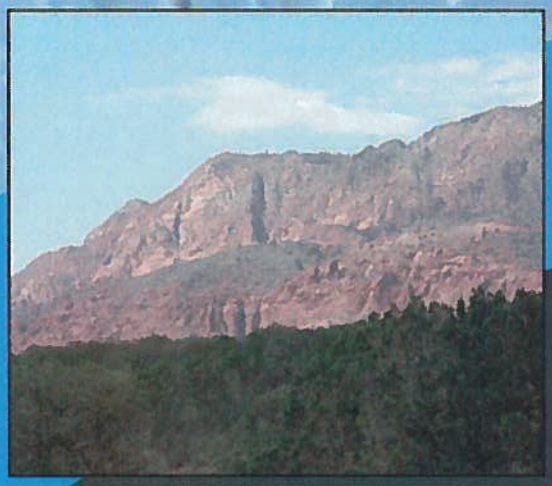
# Impact Fee Facilities Plans for Culinary Water, Sanitary Sewer and Transportation Facilities

**Project No. 127-13-01**

January 2014



Prepared for:

CEDAR HILLS

Prepared by:

Bowen Collins & Associates, Inc.
CONSULTING ENGINEERS

# IMPACT FEE FACILITIES PLANS FOR CULINARY WATER, SANITARY SEWER AND TRANSPORTATION FACILITIES

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# CHAPTER 1
# INTRODUCTION & GROWTH PROJECTIONS

## INTRODUCTION

The City of Cedar Hills is in the process of preparing impact fee facility plans (IFFPs) for eligible utilities (water, wastewater, public safety, and parks). Each utility has had a master plan prepared by various entities and considers projections of growth over the City's long-term growth window (through 2060). However, impact fee facility plans may only consider growth over a shorter time period such that impact fees will be spent or encumbered within 6 years of collection. As a result, it is important to develop growth projections for each impact fee facility plan that will identify which improvements qualify for inclusion in the calculation of impact fees as set forth by the State of Utah's Impact Fee Act. The purpose of this chapter is to document a common set of growth and development projections to be used in the City's IFFPs.

## PROJECTED POPULATION GROWTH

The State of Utah Governor's Office of Planning and Budget (GOPB) issues growth projections for the state for long term planning purposes. Table 1 shows the growth projections for City of Cedar Hills through 2060. It is proposed that these growth projections be used as the basis for all the City's IFFPs.

**Table 1-1**
**City of Cedar Hills Census or GOPB Population Projection**

| Year | City of Cedar Hills Census or GOPB Population Projection | 10-Year Average Annual Growth Rate |
|---|---|---|
| 1990 | 769 | |
| 2000 | 3,201 | 15.33% |
| 2010 | 9,796 | 11.83% |
| 2020 | 10,733 | 0.92% |
| 2030 | 10,884 | 0.14% |
| 2040 | 11,689 | 0.72% |
| 2050 | 11,800 | 0.09% |
| 2060 | 11,900 | 0.08% |

## TYPES OF DEVELOPMENT

Although projected growth in the City of Cedar Hills is minimal in future years (as noted in Table 1), it is important to understand the various types of development that may occur in association with this population growth in the City of Cedar Hills. This is important because each type of facility may be affected differently by different types of growth. For example, indoor water demands in the City are generally tied to population. Conversely, pressure

irrigation demands are tied to irrigated acreage and correspondingly can best be estimated by number of houses. To maintain consistency between the various IFFPs, this memorandum will consider several types of development.

Existing development in the City is summarized in Table 2. This data has been calculated based on available parcel and building information from City of Cedar Hills and Utah County records. The City's residential development can generally be categorized into two types: single family and multifamily. In addition to the residential development, non-residential development may have a significant impact on future development needs. Table 2 includes a calculation of existing non-residential development in terms of both square footage and developed acres.

Table 1-2
City of Cedar Hills Existing Development

| | 2013 |
|---|---|
| Residential Single Family (units) | 2,190 |
| Residential Multi-Family (units) | 291 |
| Total Residential (units) | 2,491 |
| Non-Residential (acres) | 83 |
| Non-Residential building (ksf) | 261 |

## 10-YEAR GROWTH PROJECTIONS

The planning period to be used for each of the IFFPs is 10 years. Table 3 lists the estimate of existing development in the City along with a 10-year projection of development. The population projection has been based on GOPB data with a linear interpolation between 2020 and 2030.

Table 1-3
City of Cedar Hills 10-Year Growth Projection

| Year | 2013 | 2023 |
|---|---|---|
| Residents | 9,957 | 10,778 |
| Residential Single Family (units) | 2,190 | 2,370 |
| Residential Multi-Family (units) | 291 | 316 |
| Total Residential (units) | 2,481 | 2,686 |
| Non-Residential (acres) | 83 | 115 |
| Non-Residential building (ksf) | 261 | 360.4 |
| Existing Single Family Units / Total Residential Unit Ratio | 0.88 | 0.88 |
| Existing Multi-Family Units / Total Residential Unit Ratio | 0.12 | 0.12 |

The 2023 projection of residential development in the table mirrors the GOPB population growth numbers. This is based on the assumption that existing residential development ratios will

remain the same over the next 10 years. While it is understood that development densities and ratios may change over the long-term, the short-term development window considered in the IFFPs should see little change to existing development ratios. Commercial growth projections for 2023 have been based on planning estimates from Cedar Hills City personnel.

Because the IFFPs will focus only on the 10-year planning window, the memorandum does not include development projections beyond 10 years. Instead, it will be left to each master plan to determine the best long-term planning window for each utility. In general, long-term planning projections will be based on the City's General Plan.

## LOCATION OF DEVELOPMENT

Once planning projections were developed for the City, Cedar Hills developed an estimate of the distribution of growth throughout the City based on the City's general plan, issued permits, approved projects, and preliminary developer plans. This distribution of growth was needed to identify the location of required infrastructure projects as developed in the City's various master plans. This growth pattern will used to help identify which utility projects will be needed within the next 10 years and to calculate the amount of capacity to be used by short-term growth.

## SUMMARY

The growth and development projections that will be used as part of each of the City's impact fee facility plans can be summarized as follows:

- Population Projections – The Governor's Office of Population and Budget projections will be the basis of population projections for the City of Cedar Hills IFFPs.
- Other Development Projections – It has been assumed that growth for residential development will mirror the GOPB growth projections, while commercial growth will be based on city planning estimates.
- Location of Development – The City of Cedar Hills has developed an estimate of the distribution of growth for 2023. This will be used for each utility to identify which projects will be needed to meet short-term growth and to calculate the amount of capacity to be used by short-term growth.

# CHAPTER 2
# WATER IMPACT FEE FACILITY PLAN

## INTRODUCTION

Cedar Hills City has retained Bowen Collins & Associates (BC&A) and Zions Bank Public Finance (ZBPF) to prepare impact fee facility plans (IFFPs) for five different services provided by the City. This subject of this IFFP document is culinary water. The purpose of an IFFP is to identify demands placed upon City facilities by future development and evaluate how these demands will be met by the City. The IFFP is also intended to outline the improvements which may be funded through impact fees.

Much of the analysis forming the basis of this IFFP has been taken from the City's most recent master plan. This document was prepared by Civil Science and is dated March 2007. While a significant period of time has passed since the completion of that report, Cedar Hills has not grown significantly since that time and the analysis and conclusions contained in the report are still applicable. For the purposes of this report, subsequent references to that document will simply be identified as the "Master Plan". The reader should refer to the master plan for additional discussion of planning and evaluation methodology beyond what is contained here.

Requirements for the preparation of an IFFP are outlined in Title 11, Chapter 36 of the Utah code (the Impact Fees Act). Under these requirements, an IFFP shall accomplish the following for each facility:

1. Identify the existing level of service
2. Establish a proposed level of service
3. Identify excess capacity to accommodate future growth
4. Identify demands of new development
5. Identify the means by which demands from new development will be met
6. Consider the following additional issues
    a. revenue sources to finance required system improvements
    b. necessity of improvements to maintain the proposed level of service
    c. need for facilities relative to planned locations of schools

The following sections of this report have been organized to address each of these requirements.

## EXISTING LEVEL OF SERVICE (11-36A-302.1.A.I)

Level of service is defined in the Impact Fees Act as "the defined performance standard or unit of demand for each capital component of a public facility within a service area". This section discusses the level of service being currently provided to existing users.

### Performance Standard

The defined performance standard for the City's culinary water system has been based on current Cedar Hills City Code and requirements of the State of Utah Division of Drinking Water. A detailed discussion of performance standards can be found in the Master Plan. A summary of major components is as follows:

- Water transmission and distribution lines – Must be at least 8-inches in diameter. For project level improvements internal to individual developments, developers are required to pay for 8-inch lines. In the case that the City desires to upgrade to a larger pipe size for improved system performance and to meet minimum pressures for peak flows and fire flows, the developer still pays for the equivalent of an 8-inch line, while the city makes up the difference.
- Pressure Requirements – Consistent with State Regulations. 20 psi for peak day with fire flow, 30 psi for peak instantaneous flow, and 40 psi for peak day conditions.
- Fire Flow – 1,000 gpm for residential homes less than 3,600 SF, 1,800 gpm for residential homes larger than 3,600 SF, with non-residential fire flows as determined by the fire authority.
- Source – Ability to satisfy demands on both an annual and peak demand basis. Annual supply to be based on historic average demand per equivalent residential connection (193 gpd, see below). Peak demand based on 800 gpd per equivalent residential connection.
- Storage – 400 gallons minimum per equivalent residential connection.

### Unit Demand

An analysis of water use projections from a recent Utility Rate Study prepared by Bowen Collins & Associates (BC&A) in 2012 projected future water based on historical water use and projected growth within Cedar Hills City. Projected water use for the residential customer class in said study was used to determine water use per residential connection, while projected water use from non-residential customer classes was used to determine water use per square foot of development. These water use projections are shown in Table 2-1.

Table 2-1
Projected Annual Water Use for FYE 2014

| Customer Class | Amount (gal) |
|---|---|
| Residential | 175,025,000 |
| Commercial | 5,453,000 |
| Institutional | 2,682,000 |

Based on the information contained in Chapter 1 and Table 2-2, it is possible to develop the estimated flow for the City in terms of equivalent residential connections (ERCs) by dividing water use by projected residential units. Using this method, a single ERC would produce a domestic flow of approximately 193 gallons per day (gpd) or close to 6,000 gallons per month (for both existing and future ERCs).

ERCs for non-residential users may be calculated using an estimate of the indoor water use for the development type and the following formula:

$$\frac{\text{[illegible]}}{\text{[illegible]}^{1}} = \text{[illegible]}$$

[1] Based on the projected annual water use for the residential customer class in Cedar Hills for FYE 2014. For impact fee calculation of users other than single family residential, the City may consider various methods of estimating average indoor water use for ease of calculation (e.g. meter size, fixture units, State of Utah water source sizing standards, etc.).

## PROPOSED LEVEL OF SERVICE (11-36A-302.1.A.II)

The proposed level of service is the performance standard used to evaluate system needs in the future. The Impact Fee Act indicates that the proposed level of service may:

1. diminish or equal the existing level of service; or
2. exceed the existing level of service if, independent of the use of impact fees, the City implements and maintains the means to increase the level of service for existing demand within six years of the date on which new growth is charged for the proposed level of service.

In the case of this IFFP, no changes are proposed to the existing level of service. Future growth will be evaluated based on the same level of service as identified above.

## EXCESS CAPACITY TO ACCOMMODATE FUTURE GROWTH (11-36A-302.1.A.III)

Projected future growth will be met through a combination of available excess capacity in existing facilities and construction of additional capacity in new facilities. Defining existing system capacity in terms of a single number is difficult. To improve the accuracy of the analysis, we have divided the system into three different components (storage, source, and transmission). The purpose of this breakdown is to consider the available capacity for each component individually. Excess capacity in each component of the system is as follows:

### Storage

The City's Master Plan concludes that no additional storage projects are required for the City to meet requirements through buildout.

The upper pressure zone in Cedar Hills is fed from the "Lone Peak Links" 2 MG tank. This tank feeds the Cedars (East/West) developments, Juniper Heights, and additional undeveloped areas along the east bench of the City. The upper pressure zone contains 900 residential units (140 of these units have yet to be developed). Because this project was built under a pioneering agreement between the City and a developer, no evaluation of excess capacity for the upper pressure zone was completed as part of this study. Instead, any fees associated with this storage will be governed by the pioneering agreement for the tank.

The lower pressure zone is fed off of a 1 MG tank. By subtracting out the connections served in the upper pressure zone, one can determine the remaining connections in the system. Capacity of the lower tank can then be divided proportionally between the existing and future users. Table 2-2 shows the breakdown of ERCs by service area and by existing/future development. Using this method, the percentage of the existing excess storage system capacity that will be used by future development (other than that governed by the Upper Pressure Zone pioneering agreement) is 19.7 percent.

Table 2-2
Existing and Future ERCs by Service Area

| | Upper Pressure Zone | All Other Connections | Cedar Hills Total |
|---|---|---|---|
| Existing ERCs | 760 | 1836 | 2596 |
| Future ERCs | 140 | 450 | 590 |
| Existing + Future ERCs | 900 | 2286 | 3186 |
| Excess Capacity Available to Future Users | N/A | 19.7% | 18.5% |

Source

The Master Plan concludes that the sum of all water sources for the City are adequate to meet projected demands at buildout for both peak day and average yearly demands. Thus, source capacity can again be divided between existing and future demand proportionally based on projected ERCs for the system as a whole. Based on projected growth for the entire system as shown in Table 2-2, the percentage of the existing source capacity that will be used by future development 18.5 percent.

Transmission

Following the same approach as outlined above for system sources, it can be concluded that future users will use 18.5 percent of total system transmission capacity at buildout. However, the Master Plan identifies one additional transmission project that will be required to meet system demands through buildout (to be discussed in detail later in this chapter). Because the additional transmission project has yet to be completed, the portion of existing capacity to be used by future growth will be less than this number.

To estimate the available excess capacity in the existing transmission system, current master-plan level cost estimates for transmission pipelines were used to determine the approximate value of the existing transmission system (system-level pipes larger than 8-inch) at $5.825 million. The estimated construction cost of the additional required transmission project is $341,500 as is discussed in detail later in this chapter. The available excess capacity in the existing transmission system is then estimated as the ratio of future users' portion of total system value at buildout based on projected ERCs to be developed (18.5% of $6.17 million = $1.14

million) less the value of the additional transmission project ($341,500) to the current transmission system value ($5.83 million). By subtracting the value of the additional transmission project from the future users portion of total system value at buildout, this eliminates double counting those facilities against new users. This equates to 13.8% excess capacity in the transmission system to be used by future development.

## DEMANDS PLACED ON FACILITIES BY NEW DEVELOPMENT (11-36A-302.1.A.IV)

Growth and new development in Cedar Hills is discussed in Chapter 1. Based on the projections contained in that chapter, it is possible to project increased demands on the City's facilities as a result of new development.

### Conversion of Growth and Development Projections to Water Demands

The contribution of different types of development to demand can be calculated based on historic water use. Residential water use has been calculated as 193 gpd per unit as documented above. Using the same data set, non-residential water use has averaged 85 gpd per thousand square feet of developed space. Based on these historic demands contributions and the project growth of each development type as documented in Chapter 1, projected water use is calculated in Table 2-3. Calculated growth in ERCs based on projected water usage and the definition of ERCs as outlined above is also included in the table.

Table 2-3
Projected ERCs for the City Service Area

| Year | Projected Water Use (MGD) | Projected ERCs |
|---|---|---|
| 2013 | 0.502 | 2,596 |
| 2023 | 0.550 | 2,845 |
| Full Development | 0.616 | 3,186 |

## INFRASTRUCTURE REQUIRED TO MEET DEMANDS OF NEW DEVELOPMENT (11-36A-302.1.A.V)

Demand placed upon existing system facilities by future development was projected in the Master Plan using the process outlined below. More description of the methodology used in the process outlined below can be found in the City's master plan.

1. Existing Demand The demand existing development places on the City's system was estimated based on historic water use and flow records.

2. Existing Capacity – The performance of existing system facilities was evaluated using system data provided by the City and a hydraulic computer model.
3. Existing Deficiencies – Existing deficiencies in the system were looked for by comparing defined levels of service against system performance. No existing capacity deficiencies were identified in this study.
4. Future Demand - The demand future development will place on the system was estimated based on development projections as discussed previously.
5. Future Deficiencies - Future deficiencies in the system were identified using defined level of service and results from the computer model.
6. Recommended Improvements – Needed system improvements were identified to meet demands associated with future development.

The steps listed above describe the "demands placed upon existing public facilities by new development activity at the proposed level of service; and" the means by which the political subdivision or private entity will meet those growth demands" (Section 11-36a-302-1.a of the Utah Code).

10-Year Improvement Plan

In the master plan, capital facility projects needed to provide service to various parts of the City at projected buildout were identified. No additional storage-related or source-related capital improvements will be required to meet the projected growth of Cedar Hills, since the Cottonwood Well development has been done since the master plan was completed. One culinary water transmission project will be required to meet system requirements at buildout. The exact timing of this pipeline project will depend on development but is expected to be required within the 10-year planning window.

Table 2-4 summarizes the components of the project identified in the master plan that will need to be constructed within the next ten years. These project components are detailed in the City's master plan, and have been adjusted to reflect the fact that the Cottonwood Well has been completed.

Table 2-4
Impact Fee Facilities Plan - Project Costs Allocated to Projected Development, 10-year Plan

| Project No. | Project Name | Year of Project | Estimated Total Cost (2013 Dollars) | Percent to Existing | Percent to 10-year Growth | Percent to Growth Beyond 10 Years | Cost to Existing | Cost 10-y Grov |
|---|---|---|---|---|---|---|---|---|
| 1 | 10-inch Upper Zone Culinary Waterline | 2019 | $62,500 | 0.0% | 42.2% | 57.8% | $ - | $26, |
| -- | Impact Fee Facility Plan and Impact Fee Analysis Update | 2014 | $9,590 | 0.0% | 100.0% | 0.0% | $ - | $9,5 |
| TOTAL COSTS | | | $72,090 | | | | $ - | $35, |

Note: Cost estimates are in 2013 dollars. Inflation is not included.

### Project Cost Attributable to Future Growth

To satisfy the requirements of state law, Table 2-4 provides a breakdown of the capital facility projects and the percentage of the project costs attributed to existing and future users. As defined in Section 11-36-304, the impact fee facilities plan should only include "the proportionate share of the costs of public facilities [that] are reasonably related to the new development activity."

There are several issues to consider relative to the proposed project. Because the project passes through a currently undeveloped area, the developer in the area will be responsible for costs associated with installing an 8-inch pipeline in this area (project level costs). This means that the only system costs eligible for inclusion in the impact fee are the additional costs of increasing the pipeline size from 8- to 10-inch, and the PRV station in the area. Of the total cost of $341,000, only $62,500 is eligible for inclusion in the impact fee. Based on model results from the Master Plan, however, the system level infrastructure identified in this project is needed solely to serve new development. Thus, it can be 100 percent attributed to new growth.

It should be noted that Table 2-4 does not include bond costs related to paying for impact fee eligible improvements. These costs should be added as part of the impact fee analysis.

### Project Cost Attributable to 10-Year Growth

Included in Table 2-4 is a breakdown of capacity associated with growth both at full build-out and through the next 10-years. This is necessary because the project identified in the table will be built with capacity to accommodate flows beyond the 10-year growth window. To fairly distribute costs between all future users, future costs have been divided proportionally between the two periods based on growth projections. The total cost of future projects in the impact fee facility plan that are attributable to future growth is $72,090. Of these costs, $35,967 is attributable to growth in the next ten years.

### Basis of Construction Cost Estimates

The estimated costs of construction for projects to be completed within ten years are based on estimates contained in the Master Plan updated to 2013 dollars based on the ENR cost index (ENR March 2007 = 7856, ENR December 2013 = 9667). Total project costs have also been adjusted to reflect the fact that the Cottonwood Well has been completed. Costs for this well project have been adjusted and subtracted out accordingly.

## ADDITIONAL CONSIDERATIONS

### Manner of Financing (11-36a-302.2)

The City may fund the infrastructure identified in this IFFP through a combination of different revenue sources.

Federal and State Grants and Donations. Impact fees cannot reimburse costs funded or expected to be funded through federal grants and other funds that the City has received for capital improvements without an obligation to repay. Grants and donations are not currently contemplated in this analysis. If grants become available for constructing facilities, impact fees will need to be recalculated and an appropriate credit given.

Bonds. None of the costs contained in this IFFP include the cost of bonding. The cost of bonding required to finance impact fee eligible improvements identified in the IFPP may be added to the calculation of the impact fee. This will be considered in the impact fee analysis.

Interfund Loans. Because infrastructure must generally be built ahead of growth, there often arises situations in which projects must be funded ahead of expected impact fee revenues. In some cases, the solution to this issue will be bonding. In others, funds from existing user rate revenue will be loaned to the impact fee fund to complete initial construction of the project and will be reimbursed later as impact fees are received. Consideration of potential interfund loans will be included in the impact fee analysis and should also be considered in subsequent accounting of impact fee expenditures.

Impact Fees. It is recommended that impact fees be used to fund growth-related capital projects as they help to maintain the proposed level of service and prevent existing users from subsidizing the capital needs for new growth. Based on this IFFP, an impact fee analysis will be able to calculate a fair and reasonable fee that new growth should pay to fund the portion of the existing and new facilities that will benefit new development.

Developer Dedications and Exactions. Developer exactions are not the same as grants (which should be credited from the impact fee). Developer exactions may be considered in the inventory of current and future public safety infrastructure. If a developer constructs facility or dedicates land within the development, the value of the dedication is credited against that particular developer's impact fee liability.

If the value of the dedication / exaction is less than the development's impact fee liability, the developer will owe the balance of the liability to the City. If the value of the improvements dedicated is worth more than the development's impact fee liability, the City must reimburse the difference to the developer from impact fee revenues collected from other developments.

It should be emphasized that the concept of impact fee credits pertains to system level improvements only. For project level improvement (i.e. projects not identified in the impact fee facility plan), developers will be responsible for the construction of the improvements without credit against the impact fee. Only waterlines larger than 8-inches in diameter are considered to be system improvements and will be eligible for a credit. If a developer builds and dedicates a system level improvement identified in this plan, an impact fee credit will be due to the developer for the portion of the improvement beyond what would be required for a project level improvement (8-inch pipeline) and the dedication/exaction will be classified in the inventory as if it had been funded directly by the City through impact fees collected.

### Necessity of Improvements to Maintain Level of Service (11-36a-302.3)

According to State statute, impact fees cannot be used to correct deficiencies in the system and must be necessary to maintain the proposed level of service established for all users. Only those projects or portions of projects that are required to maintain the proposed level of service for future growth have been included in this IFFP. This will result in an equitable fee as future users will not be expected to fund any portion of the projects that will benefit existing residents.

### School Related Infrastructure (11-36a-302.2)

As part of the noticing and data collection process for this plan, information was gathered regarding future school district and charter school development. Where the City is aware of the planned location of a school, required public facilities to serve the school have been included in the impact fee.

### Noticing and Adoption Requirements (11-36a-502)

The Impact Fees Act requires that entities must publish a notice of intent to prepare or modify any IFFP. If an entity prepares an independent IFFP rather than include a capital facilities element in the general plan, the actual IFFP must be adopted by enactment. Before the IFFP can be adopted, a reasonable notice of the public hearing must be published in a local newspaper at least 10 days before the actual hearing. A copy of the proposed IFFP must be made available in each public library within the City during the 10 day noticing period for public review and inspection. Utah Code requires that the City must post a copy of the ordinance in at least three places. These places may include the City offices and the public libraries within the City's jurisdiction. Following the 10-day noticing period, a public hearing will be held, after which the City may adopt, amend and adopt, or reject the proposed IFFP.

## IMPACT FEE CERTIFICATION (11-36A-306.1)

This report has been prepared in accordance with Utah Code Title 11 Chapter 36a (the "Impact Fees Act"), which prescribes the laws pertaining to Utah municipal capital facilities plans and impact fee analyses. The accuracy of this report relies upon the planning, engineering, and other source data which was provided by the City and their designees.

In accordance with Utah Code Annotated, 11-36a-306(1), Bowen Collins & Associates, certifies that this impact fee facilities plan:

1. Includes only the cost of public facilities that are:
    a. allowed under the Impact Fees Act; and
    b. actually incurred; or
    c. projected to be incurred or encumbered within six years after the day on which each impact fee is paid;

2. Does not include:
    a. costs of operation and maintenance of public facilities;
    b. cost of qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents;
    c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement; and
3. Complies in each and every relevant respect with the Impact Fees Act.

This certification is made with the following caveats:

1. All of the recommendations for implementations of the Impact Fee Facilities Plan (IFFP) made in the IFFP or in the impact fee analysis are followed in their entirety by the City.
2. If all or a portion of the IFFP or impact fee analysis is modified or amended, this certification is no longer valid.
3. All information provided in the preparation of this IFFP is assumed to be correct, complete and accurate. This includes information provided by the City and outside sources.

# CHAPTER 3
# WASTEWATER COLLECTION IMPACT FEE FACILITY PLAN

## INTRODUCTION

Cedar Hills City has retained Bowen Collins & Associates (BC&A) and Zions Bank Public Finance (ZBPF) to prepare impact fee facility plans (IFFPs) for five different services provided by the City. This subject of this IFFP document is wastewater. This IFFP will focus only on the collection system. Treatment is provided by Timpanogos Special Service District (TSSD) which has its own impact fee for this purpose.

The purpose of an IFFP is to identify demands placed upon City facilities by future development and evaluate how these demands will be met by the City. The IFFP is also intended to outline the improvements, which may be funded through impact fees.

Much of the analysis forming the basis of this IFFP has been taken from the City's most recent master plan. This document was prepared by Civil Science and is dated March 2007. While a significant period of time has passed since the completion of that report, Cedar Hills has not grown significantly since that time and the analysis and conclusions contained in the report are still applicable. For the purposes of this report, subsequent references to that document will simply be identified as the "Master Plan". The reader should refer to the master plan for additional discussion of planning and evaluation methodology beyond what is contained here.

Requirements for the preparation of an IFFP are outlined in Title 11, Chapter 36 of the Utah code (the Impact Fees Act). Under these requirements, an IFFP shall accomplish the following for each facility:

1. Identify the existing level of service
2. Establish a proposed level of service
3. Identify excess capacity to accommodate future growth
4. Identify demands of new development
5. Identify the means by which demands from new development will be met
6. Consider the following additional issues
    a. revenue sources to finance required system improvements
    b. necessity of improvements to maintain the proposed level of service
    c. need for facilities relative to planned locations of schools

The following sections of this report have been organized to address each of these requirements.

## EXISTING LEVEL OF SERVICE (11-36A-302.1.A.I)

Level of service is defined in the Impact Fees Act as "the defined performance standard or unit of demand for each capital component of a public facility within a service area". This section discusses the level of service being currently provided to existing users.

### Performance Standard

The defined performance standard for the City's wastewater collection system has been based on current Cedar Hills City Code and requirements of the State of Utah. A detailed discussion of performance standards can be found in the Master Plan. A summary of major components is as follows:

- Wastewater Collection Pipelines – Must be at least 8-inches in diameter. For project level improvements internal to individual developments, developers are required to pay for 8-inch lines. In the case that the City desires to upgrade to a larger pipe size for improved system performance and to meet future sewer flows, the developer still pays for the equivalent of an 8-inch line, while the city makes up the difference.
- Hydraulic Capacity – Pipelines must have hydraulic capacity such that peak daily flow in the pipeline does not exceed 90 percent of the pipe's full flow capacity. The remaining 10 percent of the pipe's capacity is reserved for inflow and/or unusual fluctuations in domestic flow and infiltration.
- Lift Stations and Force Mains – The City does not currently have any system level lift stations or force mains. Thus, no performance standard has been established for these facilities as part of this evaluation.

### Unit Demand

The Master Plan calculated a peak daily wastewater flow for Cedar Hills residents of 70 gpd per person. The system was conservatively evaluated at 80 gpd per person, or 320 gpd per person based on the City's current average house hold size. It should be noted, however, that this total includes both domestic wastewater production as well as an allowance for infiltration and inflow. If it is assumed that all users will have the same proportional allowance for I&I, non-residential development can be represented in terms of equivalent residential connections (ERCs) by using an estimate of the indoor water use for the development type and the following formula:

$$\frac{\text{[illegible]}}{\text{[illegible]}} = \text{[illegible]}$$

[1] Based on the projected annual water use for the residential customer class in Cedar Hills for FYE 2014 (see Chapter 2). For impact fee calculation of users other than single family residential, the City may consider various methods of estimating average indoor water use for ease of calculation (e.g. meter size, fixture units, State of Utah water source sizing standards, etc.).

## PROPOSED LEVEL OF SERVICE (11-36A-302.1.A.II)

The proposed level of service is the performance standard used to evaluate system needs in the future. The Impact Fee Act indicates that the proposed level of service may:

1. diminish or equal the existing level of service; or
2. exceed the existing level of service if, independent of the use of impact fees, the City implements and maintains the means to increase the level of service for existing demand within six years of the date on which new growth is charged for the proposed level of service.

In the case of this IFFP, no changes are proposed to the existing level of service. Future growth will be evaluated based on the same level of service as identified above.

## EXCESS CAPACITY TO ACCOMMODATE FUTURE GROWTH (11-36A-302.1.A.III)

Projected future growth will generally be met through a combination of available excess capacity in existing facilities and construction of additional capacity in new facilities. In the case of Cedar Hills, the wastewater master plan indicates that the collection system, as currently constructed, is sufficient to handle all projected future wastewater flows. Thus, future growth will not be responsible for any new projects within the City[1], but will need to participate in its share of the cost of existing facilities.

Projected growth in ERCs is summarized in Table 3-1. Based on projected ERCs, the share of existing capacity to be used by future growth through full development is 18.5 percent of the qualifying actual system cost.

Table 3-1
Existing and Future ERCs

| | Cedar Hills Total |
|---|---|
| Existing ERCs | 2596 |
| Future ERCs | 590 |
| Existing + Future ERCs | 3186 |
| Excess Capacity Available to Future Users | 18.5% |

[1] No improvements have been identified within the City; however, some improvements will be required in American Fork pipelines downstream of the City. Future growth will still be responsible for its portion of those improvements.

## DEMANDS PLACED ON FACILITIES BY NEW DEVELOPMENT (11-36A-302.1.A.IV)

Growth and new development in Cedar Hills is discussed in Chapter 1. Based on the projections contained in that chapter, it is possible to project increased demands on the City's facilities as a result of new development.

### Conversion of Growth and Development Projections to Wastewater Production

Wastewater production is a function of indoor water use and inflow and infiltration. As discussed in Chapter 2, the contribution of different types of development to water demand can be calculated based on historic water use. Once historic water use is identified, an allowance can be added for inflow and infiltration.

As discussed above, residential wastewater production (including inflow and infiltration) has been estimated in the master plan at 320 gpd per unit. Based on this unit production value and the projected growth of each development type as documented in Chapter 1, projected wastewater production is calculated in Table 3-2. Calculated growth in ERCs based on projected water usage and the definition of ERCs as outlined above is also included in the table.

Table 3-2
Projected ERCs for the City Service Area

| Year | Projected Wastewater Production Including I&I (MGD) | Projected ERCs |
|---|---|---|
| 2013 | 0.830 | 2,596 |
| 2023 | 0.910 | 2,845 |
| Full Development | 1.020 | 3,186 |

## INFRASTRUCTURE REQUIRED TO MEET DEMANDS OF NEW DEVELOPMENT (11-36A-302.1.A.V)

Demand placed upon existing system facilities by future development was projected in the Master Plan using the process outlined below. More description of the methodology used in the process outlined below can be found in the City's master plan.

1. Existing Demand – The demand existing development places on the City's system was estimated based on historic wastewater production estimates and flow records.
2. Existing Capacity – The performance of existing system facilities was evaluated using system data provided by the City and a hydraulic model.
3. Existing Deficiencies – Existing deficiencies in the system were looked for by comparing defined levels of service against system performance. No existing capacity deficiencies were identified in the master plan for Cedar Hills collection facilities.
4. Future Demand - The demand future development will place on the system was estimated based on development projections as discussed previously.

5. Future Deficiencies - Future deficiencies in the system were looked for using defined level of service and results from the computer model. No future capacity deficiencies were identified in the master plan for Cedar Hills collection facilities.
6. Recommended Improvements  Normally, needed system improvements would be identified to meet demands associated with future development. Because there were no deficiencies identified, no improvements were needed.

The steps listed above describe the demands placed upon existing public facilities by new development activity at the proposed level of service; and the means by which the political subdivision or private entity will meet those growth demands (Section 11-36a-302-1.a of the Utah Code).

10-Year Improvement Plan

While the master plan did not identify any projects within the City, there is one additional issue to consider. Cedar Hills does not directly discharge to TSSD. Instead, it connects to the American Fork collection system which then conveys the Cedar Hills flows to TSSD. As a result, Cedar Hills has an agreement with American Fork City that requires Cedar Hills to pay for any capacity expansion required to accommodate future flows. A collection system master plan update for American Fork was most recently completed by Horrocks Engineers. In a letter dated November 19, 2012, Horrocks identified five future projects associated with flows from Cedar Hills. However, only two of these projects fall within the planning window of this IFFP.

Table 3-3 summarizes the components of the projects identified in the American Fork master plan that are scheduled to be constructed within the next ten years. These project components are detailed in American Forks's master plan. Also included in the table are costs associated with the completion of this IFFP and corresponding IFA.

Table 3-3
Impact Fee Facilities Plan - Project Costs Allocated to Projected Development, 10-year Plar

| Project No. | Project Name | Year of Project | Estimated Total Cost (2013 Dollars) | Percent to Existing | Percent to 10-year Growth | Percent to Growth Beyond 10 Years | Cost to Existing | Cost 10-ye Grow |
|---|---|---|---|---|---|---|---|---|
| AF4 | 1100 North (1100 East to 900 East, then south to 700 North) | 2016 | $474,427 | 81.5% | 7.8% | 10.7% | $386,658 | $37 |
| AF5 | 1020 East (1420 North to Murdoch Drive) | 2015 | $75,794 | 81.5% | 7.8% | 10.7% | $61,772 | $5 |
| -- | Impact Fee Facility Plan and Impact Fee Analysis Update | 2014 | $9,590 | 0.0% | 100.0% | 0.0% | $0 | $9 |
| TOTAL COSTS | | | $559,811 | | | | $448,430 | $52 |

Note: Cost estimates for project AF4 and AF5 have been taken directly from the American Fork IFFP and include inflation.

### Project Cost Attributable to Future Growth

To satisfy the requirements of state law, Table 3-3 provides a breakdown of the capital facility projects and the percentage of the project costs attributed to existing and future users. As defined in Section 11-36-304, the impact fee facilities plan should only include "the proportionate share of the costs of public facilities [that] are reasonably related to the new development activity."

The cost allocations used in Table 3-3 are based on excess capacity available to future users, and reflect the growth projections for Cedar Hills. It should be noted that Table 3-3 does not include bond costs related to paying for impact fee eligible improvements. These costs, if any, should be added as part of the impact fee analysis.

### Project Cost Attributable to 10-Year Growth

Included in Table 3-3 is a breakdown of capacity associated with growth both at full build-out and through the next 10-years. This is necessary because the projects identified in the table will be built with capacity to accommodate flows beyond the 10-year growth window. To fairly distribute costs between all future users, future costs have been divided proportionally between the two periods based on growth projections. The total cost of future projects in the impact fee facility plan that are attributable to future growth is $111,381. Of these costs, $52,549 is attributable to growth in the next ten years.

### Basis of Construction Cost Estimates

The estimated costs of construction for projects to be completed within ten years have been taken directly from the American Fork IFFP and include inflation.

## ADDITIONAL CONSIDERATIONS

### Manner of Financing (11-36a-302.2)

The City may fund the infrastructure identified in this IFFP through a combination of different revenue sources.

Federal and State Grants and Donations. Impact fees cannot reimburse costs funded or expected to be funded through federal grants and other funds that the City has received for capital improvements without an obligation to repay. Grants and donations are not currently contemplated in this analysis. If grants become available for constructing facilities, impact fees will need to be recalculated and an appropriate credit given.

Bonds. None of the costs contained in this IFFP include the cost of bonding. The cost of bonding required to finance impact fee eligible improvements identified in the IFPP may be added to the calculation of the impact fee. This will be considered in the impact fee analysis.

Interfund Loans. Because infrastructure must generally be built ahead of growth, there often arises situations in which projects must be funded ahead of expected impact fee revenues. In some cases, the solution to this issue will be bonding. In others, funds from existing user rate revenue will be loaned to the impact fee fund to complete initial construction of the project and will be reimbursed later as impact fees are received. Consideration of potential interfund loans

will be included in the impact fee analysis and should also be considered in subsequent accounting of impact fee expenditures.

Impact Fees. It is recommended that impact fees be used to fund growth-related capital projects as they help to maintain the proposed level of service and prevent existing users from subsidizing the capital needs for new growth. Based on this IFFP, an impact fee analysis will be able to calculate a fair and reasonable fee that new growth should pay to fund the portion of the existing and new facilities that will benefit new development.

Developer Dedications and Exactions. Developer exactions are not the same as grants (which should be credited from the impact fee). Developer exactions may be considered in the inventory of current and future public safety infrastructure. If a developer constructs facility or dedicates land within the development, the value of the dedication is credited against that particular developer's impact fee liability.

If the value of the dedication / exaction is less than the development's impact fee liability, the developer will owe the balance of the liability to the City. If the value of the improvements dedicated is worth more than the development's impact fee liability, the City must reimburse the difference to the developer from impact fee revenues collected from other developments.

It should be emphasized that the concept of impact fee credits pertains to system level improvements only. For project level improvement (i.e. projects not identified in the impact fee facility plan), developers will be responsible for the construction of the improvements without credit against the impact fee. Only sewerlines larger than 8-inches in diameter are considered to be system improvements and will be eligible for a credit. If a developer builds and dedicates a system level improvement identified in this plan, an impact fee credit will be due to the developer for the portion of the improvement beyond what would be required for a project level improvement (8-inch pipeline) and the dedication/exaction will be classified in the inventory as if it had been funded directly by the City through impact fees collected.

### Necessity of Improvements to Maintain Level of Service (11-36a-302.3)

According to State statute, impact fees cannot be used to correct deficiencies in the system and must be necessary to maintain the proposed level of service established for all users. Only those projects or portions of projects that are required to maintain the proposed level of service for future growth have been included in this IFFP. This will result in an equitable fee as future users will not be expected to fund any portion of the projects that will benefit existing residents.

### School Related Infrastructure (11-36a-302.2)

As part of the noticing and data collection process for this plan, information was gathered regarding future school district and charter school development. Where the City is aware of the planned location of a school, required public facilities to serve the school have been included in the impact fee.

### Noticing and Adoption Requirements (11-36a-502)

The Impact Fees Act requires that entities must publish a notice of intent to prepare or modify any IFFP. If an entity prepares an independent IFFP rather than include a capital facilities element in the general plan, the actual IFFP must be adopted by enactment. Before the IFFP can be adopted, a reasonable notice of the public hearing must be published in a local newspaper at least 10 days before the actual hearing. A copy of the proposed IFFP must be made available in each public library within the City during the 10 day noticing period for public review and inspection. Utah Code requires that the City must post a copy of the ordinance in at least three places. These places may include the City offices and the public libraries within the City's jurisdiction. Following the 10-day noticing period, a public hearing will be held, after which the City may adopt, amend and adopt, or reject the proposed IFFP.

## IMPACT FEE CERTIFICATION (11-36A-306.1)

This report has been prepared in accordance with Utah Code Title 11 Chapter 36a (the "Impact Fees Act"), which prescribes the laws pertaining to Utah municipal capital facilities plans and impact fee analyses. The accuracy of this report relies upon the planning, engineering, and other source data, which was provided by the City and their designees. It also relies on information contained in the American Fork IFFP as prepared by Horrocks Engineers.

In accordance with Utah Code Annotated, 11-36a-306(1), Bowen Collins & Associates, certifies that this impact fee facilities plan:

1. Includes only the cost of public facilities that are:
    a. allowed under the Impact Fees Act; and
    b. actually incurred; or
    c. projected to be incurred or encumbered within six years after the day on which each

       impact fee is paid;
2. Does not include:
    a. costs of operation and maintenance of public facilities;
    b. cost of qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents;
    c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement; and
3. Complies in each and every relevant respect with the Impact Fees Act.

This certification is made with the following caveats:

1. All of the recommendations for implementations of the Impact Fee Facilities Plan (IFFP) made in the IFFP or in the impact fee analysis are followed in their entirety by the City.
2. If all or a portion of the IFFP or impact fee analysis is modified or amended, this certification is no longer valid.
3. All information provided in the preparation of this IFFP is assumed to be correct, complete and accurate. This includes information provided by the City and outside sources.

# CHAPTER 4
# TRANSPORTATION IMPACT FEE FACILITY PLAN

## INTRODUCTION

The City of Cedar Hill City has retained Bowen Collins & Associates (BC&A) and Zions Bank Public Finance (ZBPF) to prepare impact fee facility plans (IFFPs) for five different services provided by the City. This subject of this IFFP document is transportation. The purpose of an IFFP is to identify demands placed upon City facilities by future development and evaluate how these demands will be met by the City. The IFFP is also intended to outline the improvements, which may be funded through impact fees.

Much of the analysis forming the basis of this IFFP has been taken from the City's most recent master plan. This document was prepared by Civil Science and is dated March 2007. While a significant period of time has passed since the completion of that report, Cedar Hills has not grown significantly since that time and the analysis and conclusions contained in the report are still applicable. For the purposes of this report, subsequent references to the Civil Science document will simply be identified as the "Master Plan". The reader should refer to the master plan for additional discussion of planning and evaluation methodology beyond what is contained here.

Requirements for the preparation of an IFFP are outlined in Title 11, Chapter 36 of the Utah code (the Impact Fees Act). Under these requirements, an IFFP shall accomplish the following for each facility:

1. Identify the existing level of service
2. Establish a proposed level of service
3. Identify excess capacity to accommodate future growth
4. Identify demands of new development
5. Identify the means by which demands from new development will be met
6. Consider the following additional issues
    a. revenue sources to finance required system improvements
    b. necessity of improvements to maintain the proposed level of service
    c. need for facilities relative to planned locations of schools

The following sections of this report have been organized to address each of these requirements.

## EXISTING LEVEL OF SERVICE (11-36A-302.1.A.I)

Level of service is defined in the Impact Fees Act as "the defined performance standard or unit of demand for each capital component of a public facility within a service area". This section discusses the level of service being currently provided to existing users.

Cedar Hills has some unique characteristics as a community relative to transportation. Because it is relatively small in size and bounded on the east by the Wasatch Mountains, it is not a major corridor for through traffic from other communities. Other than collectors serving development internal to the City, the only significant thoroughfare in the City is Canyon Road, which is administered by UDOT. As a result, the level of service for transportation facilities in the City as identified in the City's master plan is not defined using the traditional definition of transportation planning "level of service" (i.e. performance in accommodating traffic volume). Instead, level of service in the master plan is defined based on the functional classification of streets (i.e. providing adequate corridor width to achieve the designated purpose of each street).

The result of this approach is that each road within the City is designated as one of three functional types: local street, minor collector, or major collector. Required cross section width and amenities for each functional classification are identified in Drawing 201A of the City's Engineering Standards. Minimum level of service as defined in the master plan for each functional classification is as follows:

| | |
|---|---|
| Major Collector | |
| Right-of-Way = | 74 feet |
| Pavement Width = | 52 feet |
| Turn Lane = | 14 feet |
| Roadway Improvements = | 11 feet each side |
| Minor Collector | |
| Right-of-Way = | 66 feet |
| Pavement Width = | 44 feet |
| Turn Lane = | 14 feet |
| Roadway Improvements = | 11 feet each side |
| Local Street | |
| Right-of-Way = | 56 feet |
| Pavement Width = | 34 feet |
| Turn Lane = | None |
| Roadway Improvements = | 11 feet each side |

All functional classifications include the same types of roadway improvements (2 foot wide curb and gutter, 4 to 5 foot wide sidewalk, and 4 to 5 foot wide planter strip/protection strip/street lighting). Major and minor collectors include street lighting on alternating sides of the street at 150-foot intervals (maximum), including lights at all intersections.

Designations of functional classification for each road have been based on input from City personnel regarding desired mobility and access while maintaining safety, aesthetics, and life span for each road segment. Project level improvements internal to individual developments are designated as local streets. System level improvements connecting multiple developments are designated as minor or major collectors.

## PROPOSED LEVEL OF SERVICE (11-36A-302.1.A.II)

The proposed level of service is the performance standard used to evaluate system needs in the future. The Impact Fee Act indicates that the proposed level of service may:

1. diminish or equal the existing level of service; or
2. exceed the existing level of service if, independent of the use of impact fees, the City implements and maintains the means to increase the level of service for existing demand within six years of the date on which new growth is charged for the proposed level of service.

In the case of this IFFP, no changes are proposed to the master plan level of service. Designation of functional classification has been set for all transportation corridors and will not change in the future. Achieving the master plan level of service will consist of completing a few final improvements to bring all roads up to their designated level of service. The final improvements identified to reach the proposed level of service have been identified to occur within the next six years.

## EXCESS CAPACITY TO ACCOMMODATE FUTURE GROWTH (11-36A-302.1.A.III)

The transportation master plan indicates that, once the City has constructed all streets at their designated level of service, the transportation system will be sufficient to handle all projected traffic volumes. Thus, future growth will not be responsible for any new projects, but will need to participate in its share of the cost of existing facilities and completion of remaining level of service improvements. Based on projected future trips as discussed in the following section, the calculated percentage of existing capacity to be used by growth through full development is 27.8 percent of the qualifying actual system cost.

## DEMANDS PLACED ON FACILITIES BY NEW DEVELOPMENT (11-36A-302.1.A.IV)

Growth and new development in Cedar Hills is discussed in Chapter 1. Based on the projections contained in that chapter, it is possible to project increased demands on the City's facilities as a result of new development.

### Conversion of Growth and Development Projections to Transportation Demands

Development projections were converted to transportation demands using trip generation rates assigned to each land use type. Trip generation rates have been taken from the Institute of Transportation Engineers (ITE) 9th edition. Table 4-1 lists the projected daily trips for development within the City's service area based on this approach.

Table 4-1
Projected Daily Trips for the City Service Area

| Year | Total Daily Trips |
|---|---|
| 2013 | 15,085 |
| 2023 | 17,511 |
| Full Development | 20,882 |

It should be noted that the trip generation rates have been cut in half for the generation of total trips in the table assuming that half of the traffic is caused by where the trip starts, and the other half is caused by where the trip ends. It should also be noted the table does not include through traffic (aka pass-by trips) not associated with City development.

### Equivalent Residential Units

Based on the information contained in the tables above, it is possible to describe projected traffic needs for the City in terms of equivalent residential units (ERUs). Based on the ITE trip generation rates, a single family residential unit generates 4.775 trips per day (for both existing and future ERUs). Consequently, 4.775 trips per day becomes the definition of an ERU. ERUs for other development types may be calculated using the trip generation rates for the development type and the following formula:

[1] Unless other day is available, daily trips to be estimated based on land use type and ITE 9th edition trip generation rates. Note that ITE trip generation rates include both trip starts and stops. To calculate total trips for impact fee purposes, the ITE rate is divided by two.

## INFRASTRUCTURE REQUIRED TO MEET DEMANDS OF NEW DEVELOPMENT (11-36A-302.1.A.V)

As noted previously, once the City has constructed all streets at their designated level of service, the transportation system will be sufficient to handle all projected traffic volumes. Thus, future growth will not be responsible for any new projects, but will need to participate in its share of the cost to complete the few remaining improvements to satisfy the proposed level of service.

### 10-Year Improvement Plan

In the master plan, ten transportation system improvements were identified. Of these, eight have been completed and two are remaining. Table 4-2 summarizes the components of projects identified in the master plan that will need to be constructed within the next ten years.

Table 4-2
Impact Fee Facilities Plan - Project Costs Allocated to Projected Development, 10-year Plan

| Project No. | Project Name | Year of Project | Estimated Total Cost (2013 Dollars) | Percent to Existing | Percent to 10-year Growth | Percent to Growth Beyond 10 Years | Cost to Existing | Cost to year Grow |
|---|---|---|---|---|---|---|---|---|
| 1 | 4000 West (9900 North to 9800 North & 9500 North to 9400 North) | 2017 | $775,500 | 72.2% | 11.6% | 16.1% | $560,215 | $90,( |
| 2 | Harvey Blvd. (4800 West to Fergusen Dr. & Royal Red Road to 4160 West) | 2019 | $355,400 | 72.2% | 11.6% | 16.1% | $256,738 | $41,2 |
| -- | Impact Fee Facility Plan and Impact Fee Analysis Update | 2014 | $9,590 | 0.0% | 100.0% | 0.0% | $ - | $9,5 |
| TOTAL COSTS | | | $1,140,490 | | | | $816,954 | $140, |

Note: Cost estimates are in 2013 dollars. Inflation is not included.

### Project Cost Attributable to Future Growth

To satisfy the requirements of state law, Table 4-2 provides a breakdown of the capital facility projects and the percentage of the project costs attributed to existing and future users. As defined in Section 11-36-304, the impact fee facilities plan should only include "the proportionate share of the costs of public facilities [that] are reasonably related to the new development activity." As noted previously, future growth will not be completely responsible for any new projects, but will need to participate in its share of the cost to complete the few remaining improvements to satisfy the proposed level of service.

In this situation, costs have been divided between the two categories based on the ratio of trips generated by each type of user. This is consistent with the distribution of cost for existing infrastructure capacity and assures equivalent costs to both existing and future users. It should be noted that Table 4-2 does not include bond costs related to paying for impact fee eligible improvements. These costs should be added as part of the impact fee analysis.

### Project Cost Attributable to 10-Year Growth

Included in Table 4-2 is a breakdown of capacity associated with growth both at full development and through the next 10-years. This is necessary because some future growth will obviously be beyond the 10-year growth window. As summarized in the table, the total cost of future projects in the impact fee facility plan that are attributable to future growth is $323,536. Of these costs, $140,974 are attributable to growth in the next ten years.

### Basis of Construction Cost Estimates

The estimated costs of construction for projects to be completed within ten years are based on estimates contained in the Master Plan updated to 2013 dollars based on the ENR cost index (ENR March 2007 = 7856, ENR December 2013 = 9667). Total project costs for Harvey Blvd. (Project 2) have also been adjusted to reflect elimination of a section of the project from 4000 West to 3900 West.

## ADDITIONAL CONSIDERATIONS

### Manner of Financing (11-36a-302.2)

The City may fund the infrastructure identified in this IFFP through a combination of different revenue sources.

Federal and State Grants and Donations. Impact fees cannot reimburse costs funded or expected to be funded through federal grants and other funds that the City has received for capital improvements without an obligation to repay. Grants and donations are not currently contemplated in this analysis. If grants become available for constructing facilities, impact fees will need to be recalculated and an appropriate credit given.

Bonds. None of the costs contained in this IFFP include the cost of bonding. The cost of bonding required to finance impact fee eligible improvements identified in the IFPP may be added to the calculation of the impact fee. This will be considered in the impact fee analysis.

Interfund Loans. Because infrastructure must generally be built ahead of growth, there often arise situations in which projects must be funded ahead of expected impact fee revenues. In some cases, the solution to this issue will be bonding. In others, funds from existing user rate revenue will be loaned to the impact fee fund to complete initial construction of the project and will be reimbursed later as impact fees are received. Consideration of potential interfund loans will be included in the impact fee analysis and should also be considered in subsequent accounting of impact fee expenditures.

Impact Fees. It is recommended that impact fees be used to fund growth-related capital projects as they help to maintain the proposed level of service and prevent existing users from subsidizing the capital needs for new growth. Based on this IFFP, an impact fee analysis will be able to calculate a fair and reasonable fee that new growth should pay to fund the portion of the existing and new facilities that will benefit new development.

Developer Dedications and Exactions. Developer exactions are not the same as grants (which should be credited from the impact fee). Developer exactions may be considered in the inventory of current and future public safety infrastructure. If a developer constructs facility or dedicates land within the development, the value of the dedication is credited against that particular developer's impact fee liability.

If the value of the dedication / exaction is less than the development's impact fee liability, the developer will owe the balance of the liability to the City. If the value of the improvements dedicated is worth more than the development's impact fee liability, the City must reimburse the difference to the developer from impact fee revenues collected from other developments.

It should be emphasized that the concept of impact fee credits pertains to system level improvements only. For project level improvement (i.e. local streets), developers will be responsible for the construction of the improvements without credit against the impact fee. Only major and minor collectors are considered to be system improvements and will be eligible for a credit. If a developer builds and dedicates a system level collector identified in this plan, an impact fee credit will be due to the developer for the portion of the improvement beyond what would be required for a project level improvement and the dedication / exaction will be classified in the inventory as if it had been funded directly by the City through impact fees collected.

### Necessity of Improvements to Maintain Level of Service (11-36a-302.3)

According to State statute, impact fees cannot be used to correct deficiencies in the system and must be necessary to maintain the proposed level of service established for all users. Only those projects or portions of projects that are required to maintain the proposed level of service for future growth have been included in this IFFP. This will result in an equitable fee as future users will not be expected to fund any portion of the projects that will benefit existing residents.

### School Related Infrastructure (11-36a-302.2)

As part of the noticing and data collection process for this plan, information was gathered regarding future school district and charter school development. Where the City is aware of the planned location of a school, required public facilities to serve the school have been included in the impact fee.

### Noticing and Adoption Requirements (11-36a-502)

The Impact Fees Act requires that entities must publish a notice of intent to prepare or modify any IFFP. If an entity prepares an independent IFFP rather than include a capital facilities element in the general plan, the actual IFFP must be adopted by enactment. Before the IFFP can be adopted, a reasonable notice of the public hearing must be published in a local newspaper at least 10 days before the actual hearing. A copy of the proposed IFFP must be made available in each public library within the City during the 10 day noticing period for public review and inspection. Utah Code requires that the City must post a copy of the ordinance in at least three places. These places may include the City offices and the public libraries within the City's jurisdiction. Following the 10-day noticing period, a public hearing will be held, after which the City may adopt, amend and adopt, or reject the proposed IFFP.

## SECTION 10: IMPACT FEE CERTIFICATION (11-36A-306.1)

This report has been prepared in accordance with Utah Code Title 11 Chapter 36a (the "Impact Fees Act"), which prescribes the laws pertaining to Utah municipal capital facilities plans and impact fee analyses. The accuracy of this report relies upon the planning, engineering, and other source data, which was provided by the City and their designees.

In accordance with Utah Code Annotated, 11-36a-306(1), Bowen Collins & Associates, certifies that this impact fee facilities plan:

1. Includes only the cost of public facilities that are:
    a. allowed under the Impact Fees Act; and
    b. actually incurred; or
    c. projected to be incurred or encumbered within six years after the day on which each impact fee is paid;
2. Does not include:
    a. costs of operation and maintenance of public facilities;
    b. cost of qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents;
    c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement; and
3. Complies in each and every relevant respect with the Impact Fees Act.

This certification is made with the following caveats:

1. All of the recommendations for implementations of the Impact Fee Facilities Plan (IFFP) made in the IFFP or in the impact fee analysis are followed in their entirety by the City.

2. If all or a portion of the IFFP or impact fee analysis is modified or amended, this certification is no longer valid.
3. All information provided in the preparation of this IFFP is assumed to be correct, complete and accurate. This includes information provided by the City and outside sources.

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